

Application No. 10/588,545
AMENDMENT dated April 11, 2012
Reply to Office Action of January 11, 2012
Attorney Docket 7383-88964-US

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A support for supporting a structure on a surface, the support comprising at least one support element, the or each support element comprising:
a piston,
a cylinder in which the piston is moveable, and
a brake which is adapted to engage the piston in a position that is stable relative to the cylinder,

wherein the piston and the cylinder are arranged so that a loading associated with the structure effects an adjustment of the support element,

and wherein an increase in hydraulic pressure within the cylinder, effected by the loading associated with the structure, activates the brake.

2. (Original) A support as claimed in claim 1 wherein the cylinder has a fluid inlet/outlet and is arranged so that an amount of fluid flowing through the or each inlet/outlet controls the movement of the or each piston relative to the or each cylinder.

3. (Original) A support as claimed in claim 2 wherein the movement of the or each piston effects a movement of a surface contact portion of the or each support element relative to the surface.

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4. (Original) A support as claimed in claim 3 comprising at least two support elements, each of the support elements having a surface contact portion and wherein the fluid inlet/outlets are interconnected by at least one fluid conduit so that the fluid can flow between the inlet/outlets.
5. (Original) A support as claimed in claim 4 being arranged so that in use, when the support is placed on the surface and at least one of the surface contact portions does not contact the surface, a movement of the pistons relative to the cylinders is effected that adjusts the positions of the surface contact portions relative to the surface.
6. (Currently Amended) A support as claimed in claim 5 wherein each piston comprises [[the]] each surface contact portion arranged to contact the surface.
7. (Currently Amended) A support as claimed in claim 5 wherein [[the]] each surface contact portion is a component that is either in direct or indirect contact with [[the]] each piston.
8. (Previously Presented) A support as claimed in claim 5 being arranged so that the pistons move relative to the cylinders, until an increase of fluid pressure in the cylinders actuates the brake.
9. (Previously Presented) A support as claimed in claim 1 wherein the brake of each support element is hydraulic.
10. (Previously Presented) A support as claimed in claim 9, wherein the piston of each support element has a cavity arranged so that in use fluid can penetrate from the inlet/outlet into the cylinder and into the cavity.

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11. (Original) A support as claimed in claim 10 wherein the piston of each support element is elongate and at least one side portion has at least one recess that is linked to the cavity.

12. (Currently Amended) A support as claimed in claim 11 wherein a brake-pad or brake-cylinder is positioned in the or each recess of [[the]] each piston and arranged so that if fluid penetrates into the cavity the or each brake-pad or brake-cylinder is in use moved towards an interior wall of the cylinder.

13. (Currently Amended) A support as claimed in claim 12 wherein the brake is arranged so that an increase of the fluid pressure in the cavity increases the pressure of the or each brake-pad or brake-cylinder against the interior wall of the cylinder and thereby acts against the moveability of [[the]] each piston in the cylinder.

14. (Original) A support as claimed in claim 9 wherein the cylinder has at least one recess in an interior side wall and at least one brake pad or brake cylinder is positioned in the or each recess of the interior side wall and arranged to push against the piston to act against the moveability of the piston in the cylinder.

15. (Previously Presented) A support as claimed in claim 1 wherein the brake of each support element is mechanical.

16. (Currently Amended) A support as claimed in claim 15 comprising a brake portion which is moveable relative to the cylinder and with the piston until [[the]] a movement of [[the]] a surface contact portion is restricted.

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17. (Previously Presented) A support as claimed in claim 16, wherein the brake portion is arranged so that, when the movement of the brake portion is restricted, a further movement of the piston relative to the cylinder activates the brake.

18. (Previously Presented) A support of claim 17, wherein the brake has wedging portions which in use effect a movement of the brake portion against an interior wall of the cylinder.

19. (Previously Presented) A support as claimed in claim 1 having three support elements.

20. (Previously Presented) A support as claimed in claim 1 having four support elements.

21. (Previously Presented) A support as claimed in claim 1 wherein the structure is a furniture item.

22. (Previously Presented) A support as claimed in claim 1 wherein the structure is a table.

23. (Previously Presented) A support as claimed in claim 1, wherein the brake is situated between two or more support elements and comprises at least two fluid reservoirs adapted such that when the pressure in at least one fluid reservoir is below a threshold level the fluid reservoirs are in fluid communication and when the pressure in at least two fluid reservoirs is above a threshold level the fluid reservoirs are not in fluid communication.

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24. (Original) A support as claimed in claim 23, further comprising a valve disposed between the fluid reservoirs.

25. (Original) A support as claimed in claim 24, wherein the valve comprises:
a ceramic disk disposed between the reservoirs, the ceramic disk including at least one reservoir aperture;
at least two pistons, each piston being associated with a reservoir, each piston including a piston aperture, each piston being biased such that when the pressure in any reservoir is below a threshold level the piston aperture aligns with the reservoir aperture allowing fluid to flow therethrough and when the pressure in all reservoirs is above a threshold level the piston.

26. (Original) A support as claimed in claim 24, wherein the valve comprises:
at least two sealing elements, each sealing element being associated with a reservoir, wherein the sealing elements are shaped such that a change in pressure results in relative movement of the sealing elements with respect to one another such that if the pressure in all reservoirs is above a threshold level the sealing elements abut, preventing fluid flow between the reservoirs.

27. (Original) A support as claimed in claim 26, wherein the sealing elements are composed of gel.

28. (Original) A support as claimed in claim 27, wherein the sealing elements are pistons.

29. (Original) A support as claimed in claim 28, wherein the pistons are disposed between membranes.

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30. (Canceled)

31. (Canceled)

32. (Canceled)

33. (Currently Amended) ~~A braking system as defined in claim 32~~ A braking system for a piston and cylinder assembly, the braking system comprising a brake adapted to be actuated by an increase in fluid pressure within the cylinder, wherein the piston has a cavity arranged so that in use fluid can penetrate from an inlet/outlet into the cylinder and into the cavity and wherein at least one side portion of the piston has at least one recess that is linked to the cavity.

34. (Original) A braking system as defined in claim 33, wherein a brake-pad or brake-cylinder is positioned in the or each recess of the piston and arranged so that if fluid penetrates into the cavity the or each brake-pad or brake-cylinder is in use moved towards an interior wall of the cylinder.

35. (Previously Presented) A braking system as defined in claim 34, wherein the brake is arranged so that an increase of the fluid pressure in the cavity increases the pressure of the or each brake-pad or brake-cylinder against the interior wall of the cylinder and thereby acts against the moveability of the piston in the cylinder.

36. – 45. (Canceled)

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46. (Previously Presented) A support for supporting a structure on a surface, the support comprising at least one support element, the or each support element comprising:

- a piston,
- a cylinder in which the piston is moveable, and
- a brake for maintaining the piston in a position that is stable relative to the cylinder,

wherein the piston and the cylinder are arranged so that a loading associated with the structure effects an adjustment of the support element,

and wherein the loading associated with the structure activates the brake if the moveability of a surface contact portion of the support element is reduced below a threshold value.